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United States Patent Application

of

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for a new and useful invention entitled:

TOY CLAPPER

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TOY CLAPPER

TECHNICAL FIELD

This invention generally relates to novelty devices and more particularly to toys which create audio, visual, and olfactory effects.

BACKGROUND OF THE INVENTION

Novelty devices such as pennants, pinwheels, and like devices are commonly used by spectators who attend sporting events such as baseball, basketball, football etc. These novelty devices are designed to be waved or otherwise displayed by the patrons and often produce audible and visual effects which aid the user in expressing excitement during the event of interest.

The novelty device of the present invention combines audio, visual, and olfactory effects, is safe to use, and relatively inexpensive to produce.

SUMMARY OF THE INVENTION

The present invention includes an elongated central member having first and second ends and a longitudinal axis. A sliding collar captures the central member and is adapted to freely slide along the central member. A plurality of resilient rib elements are attached to both the sliding collar and a first location along the elongated central member such that the resilient elements urge the sliding collar away from the first location along the elongated central member. The resilient rib elements are adapted to flex radially outward with respect to the longitudinal axis of the elongated central member in response to certain forces.

Preferably, A stop element is attached to the elongated central member to limit the sliding movement of the sliding collar. Preferably the rib elements are comprised of mylar and the central member is comprised of clear plastic tubing.

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In alternative embodiments of the present invention, the elongated central member includes an inner chamber which can house a scented element, an electric lamp, or a plurality of rattling elements.

BRIEF DESCRIPTIONS OF THE DRAWINGS

Figure 1 is a perspective view of the toy clapper of the present invention showing the plurality of resilient element in their radially extended position.

Figure 2 is a front elevational view of the devices of Figure 1 showing the resilient rib elements in the radially retracted position.

Figure 3 is a top view taken substantially along lines 3-3 of Figure 2.

Figure 4 is a perspective view of the device of Figure 2.

Figure 5 is a bottom view taken substantially along lines 5-5 of Figure 4.

Figure 6 is a partial cross sectional view of the device of Figure 2.

Figure 7 is a depiction of the resilient rib elements of the present invention prior to attachment to the elongated central member.

Figure 8 is a second embodiment of the present invention.

Figure 9 is a third embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Now referring to Figures 1 through 5, toy 10 is comprised of elongated central member 12, sliding collar 14, and a plurality of resilient rib elements 16. Each resilient rib element 16 includes a first end which is attached to sliding collar 14 and a second end which is attached to elongated central member 12 preferably by way of cap 18. Sliding collar 14 is loosely fitted around elongated central member 12 such that it is free to slide 24 along the longitudinal axis 26 of elongated central member 12.

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Resilient rib elements 16 are preferably constructed from any material that is somewhat flexible. One particular material that works exceptionally well is ~~mylar~~ ^{MyLar®} *MyLar*. Preferably ~~mylar~~ ^{MyLar®} 16, include a creased midportion 28. Figures 2 and 4 show the shape of the plurality of rib elements 16 when toy 10 is in its rest position. Figure 1 depicts the radial extension of rib elements 16 when toy 10 is in its excited position. Toy 10 can be excited in one of two ways. The first way of exciting toy 10 is to simply grasp handle 22 and move toy 10 in an oscillating motion 24 parallel to longitudinal axis 26. This motion will cause sliding collar 14 to move in a oscillating way along longitudinal axis 26 thereby causing creased midportion 28 of plurality of resilient ribs 16 to move radially outwardly and inwardly 30. The second way to excite toy 10 is to rotate 32 handle 22 around longitudinal axis 26. This can be most effectively done by placing handle 22 between the right left hand of the user and rolling handle 22 between each hand. This rolling motion causes a centrifugal force to urge creased midsection 28 radially outwardly with respect to longitudinal axis 26. This urging in turn causes sliding collar 14 to move upwardly along central member 12 towards cap 18. When sliding collar 14 moves from the position shown in Figure 1 to the position shown in Figures 2 and 4 it strikes against shoulder 34 of handle 22 thereby causing a clicking or clapping sound.

Elongated central member 12 includes stop element 20 (see Figure 6) which limits the upward motion of sliding collar 14. If stop element 20 were not present it is possible that resilient rib element 16 might wrap around the top of cap 18 thereby entangling rib elements 16.

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Now referring to Figures 6 through 9, preferably elongated central member 12 is comprised of clear plastic such as plexiglas, polyethylene, polypropylene, etc.

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A preferred method for constructing resilient rib elements 16 is shown in Figure 7 wherein a plurality of slits 38 are made in a single sheet of Mylar[®] 36. The midsection 28 of the Mylar[®] is creased which causes the Mylar[®] to deviate from its sheet geometry to that of a peaked geometry (best seen in Figure 2 indicated by reference numeral 28). While slits 38 should pass through the thicker Mylar[®] 36, they should not completely traverse Mylar[®] sheet 36 but preferably terminate 40 short of the edge portion of Mylar[®] 36. This fabrication technique leaves the end portions of each resilient rib element 16 integrally attached to the Mylar[®] sheet which aids in handling the resilient rib elements 16 during assembly.

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Cap 18 is sized such that it forms a tight, friction fit over Mylar[®] 36 to secure one end of Mylar[®] 36 to elongated central member 12. On the other hand, sliding collar 14 is glued or otherwise fastened to the opposite end of Mylar[®] sheet 36 such that sliding collar 14 is free to slide 24 along the longitudinal axis 26 whenever toy 10 is excited.

Figure 6 depicts a first embodiment of the toy of the present invention wherein rattling elements 42 are contained within an inner chamber 41 of elongated central member 12. When toy 10 is excited, rattling elements 42 contact the wall portions of chamber 41 thereby producing a rattling sound.

In the second embodiment of the present invention, a scented element 44 is contained within chamber 41. Holes 43 are placed in cap 18, and in selected walls of chamber 41 so that the scent which emanates from scented element 44 can be enjoyed.

In a third embodiment of the present invention an electric lamp element 46 is contained within chamber 41 along with switch 48 and battery 50 when switch 48 is turned on, electrical current flows from battery 50 through lamp 46. The light emitted from lamp 46 travels upward through translucent wall 52 and emanates from translucent side walls 54 of elongated central member 12.

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Preferred embodiments of the present invention have been disclosed; however a person of ordinary skill in the art would realize that certain modifications fall within the teaching of this invention. Therefore the following claims should be constructed to cover the disclosed embodiments as well as all fair equivalents thereof.